[redacted]

Exercise 1

Characteristic	Block 1	Block 2
Type of nbits	If nbits is less than zero, the array is invalid (*NegativeArraySizeException*)	If nbits is greater or equal to zero, the array is valid.
Type of bitIndex	If bitIndex is less than zero, the specified index is out of bounds (*IndexOutOfBoundsException*)	If bitIndex is greater or equal to zero, the specific index is valid.
Relation of a an element to BitSet	Element is false	Element is true

* We are considering "element" in the last characteristic as the value in the bitIndex position. It is valid to mention that the second characteristic refers to the three methods that use bitIndex as an input parameter (get, set and flip), we grouped them to simplify the test code. All the two blocks satisfy the properties of completeness and disjointness.

Exercise 2

First, let's label the blocks of the first exercise for clarity:

Characteristic	Block 1	Block 2
Q1	A1	A2
Q2	B1	B2
Q3	C1	C2

Base Test:

A2, B2, C2

The reason why I choose this base test: Most likely from an end-use point of view.

Subsequent tests:

(1) A1, B2, C2
(2) A2, B1, C2
(3) A2, B2, C1

All the tests are feasible, but we expect exceptions for the subsequent tests in red.

Exercise 3

The code is attached to the assignment.